

BUTTERFLY VALVES

OPERATING LIFE

Butterfly valves can operate for more than 10,000 cycles and still provide "bubble tight" shut off. (There are not many valves that can take that kind of punishment).

PRESSURE DROP

Energy costs go up with excessive pressure drop prevalent. Point to keep in mind - the valve or valves are but one factor in a piping system that contribute to pressure drop. Of equal concern are these factors:

- ∞ Flow area of piping
- ∞ Friction loss against pipe walls.
- ∞ Change of flow direction via fittings.
- ∞ Butterfly valve have flow characteristics three times better than globe valves and approximately 75% of an equivalent size gate valve.

VERSATILITY

Butterfly valves can be used for on/off service and throttling/balancing. they are superior in "versatility" as compared to a gate or globe valve. Butterfly valves have a wider range of chemical resistance due to the trim options and choice of elastomeric liners.

WEIGHT

Installation of dollars saved with lightweight butterfly valves as compared to heavyweight cast iron valves, ie, a 10" butterfly valve may weigh 490 pounds. This can be an important consideration when it is added up over an entire system. The heavier the system, the stronger the pipe hangers, and the more expensive they become. So, by considering the weight of a valve one can also reduce piping costs.

PHYSICAL SIZE

Butterfly valves take up approximately 1/6 the space of a gate valve. Every cubic foot of a building costs money; ie, 10" butterfly valve is about 21" high, 10" iron gate is about 43" high.

BUBBLE TIGHT SHUT-OFF

Gate and globe (metal to metal) seats cannot provide bubble tight shut-off.

EASE OF OPERATION

Butterfly valves offer 1/4 turn (90 degree) open to close. Gates and globes require multiple turns to open and close. Ease of opening or closing means that butterfly valves can employ less expensive operators.

COST

A butterfly valve is generally 40% the cost of an iron gate. Not only low initial cost but low installation costs also.

MAINTENANCE

Butterfly valves because of their high flow coefficients and resilient seats are virtually self cleaning and are less susceptible to failure due to trash material in the line.

BI-DIRECTIONAL

Butterfly valves are bi-directional and may be installed in either direction.

POSITION

The stem can be installed in any position.

CAUTION

1. Class 250 cast iron and Class 300 steel flanges can not be used on these valve.
2. Rubber faced or mechanical flanges are not recommended
3. This valve is not recommended for steam service.
4. Valves should not be assembled to the flanges and then welded into the piping system.
5. Lever-lock handles are not recommended for use on 8" and larger valves.

Screw and Bolt Data

| VALVE SIZE | ALLBOLTING | | WAFERTYPE | | LUGTYPE | |
|------------|-------------|--------|-------------------------|-------------------------|--------------------|--|
| | DIA | NUMBER | MACHINE BOLTS-LENGTH(A) | MACHINE BOLTS-LENGTH(B) | CAPSCREW-LENGTH(C) | |
| 2" | .625 (5/8") | 4 8 | 4.50 | 5.00 | 1.50 | |
| 2 1/2" | .625 (5/8") | 4 8 | 4.50 | 5.50 | 1.50 | |
| 3" | .625 (5/8") | 4 8 | 4.50 | 5.50 | 1.625 | |
| 4" | .625 (5/8") | 8 16 | 5.00 | 6.50 | 1.875 | |
| 5" | .750 (3/4") | 8 16 | 5.50 | 6.00 | 2.00 | |
| 6" | .750 (3/4") | 8 16 | 5.50 | 8.00 | 2.00 | |
| 8" | .750 (3/4") | 8 16 | 6.00 | 8.50 | 2.25 | |
| 10" | .875 (7/8") | 12 24 | 6.50 | 7.50 | 2.25 | |
| 12" | .875 (7/8") | 12 24 | 7.00 | 7.50 | 2.50 | |